estimates at least one spatial translation position corresponding to at least one symmetry point which is not the correlation function extremum, based on a plurality of correlation function value points bounding the correlation function extremum, the at least one spatial translation position corresponding to the at least one symmetry point indicative of the displacement of the second image relative to the first image.--

--45.   The image-correlation optical position determining device according to claim 44, wherein the first and second images acquired by the sensing device comprise speckle images..--

--46.   An image-correlation optical position determining device, usable to estimate a displacement of a second image acquired by a sensing device relative to a first image acquired by the sensing device, the device comprising:

means for determining a set of correlation function value points indicative of a correlation function extremum, each correlation function value point based at least partially on a pattern of image values included in both the first image and the second image, each correlation function value point further based on a respective known spatial translation of the image values in the second image relative to the image values in the first image; and

means for estimating at least one spatial translation position corresponding to at least one symmetry point which is not the correlation function extremum, based on a plurality of correlation function value points bounding the correlation function extremum, the at least one spatial translation position corresponding to the at least one symmetry point indicative of the displacement of the second image relative to the first image.--

--47.   The image-correlation optical position determining device according to claim 46, further comprising means for acquiring the first image and the second image.--

--48. The image-correlation optical position determining device according to claim 46, wherein the first and second images acquired by the sensing device comprise speckle images.--

--49. The image-correlation optical position determining device according to claim 48, further comprising means for acquiring the first image and the second image.--

--50. An image-correlation optical position determining device, comprising:

a sensing device that receives light and that forms at least a first image based on respective received light and a second image based on respective received light; and

signal generating and processing circuitry that determines, based on the first and second images formed by the sensing device, a set of correlation function value points indicative of a correlation function extremum and that estimates a spatial translation position based on a plurality of correlation function value points bounding the correlation function extremum, the spatial translation position representing the displacement of the second image relative to the first image;

wherein estimating the spatial translation position does not depend on characterizing the correlation function in the vicinity of the correlation function extremum.--

--51. A speckle-image-correlation optical position determining device, comprising:

a sensing device that receives light scattered from a portion of an optically diffusing surface that is movable relative to the sensing device and that is illuminated with coherent light, the sensing device forming at least a first image based on respective received light and a second image based on respective received light; and

signal generating and processing circuitry that estimates, based on the first and second images, a first plurality of correlation function value points indicative of a correlation function extremum and that estimates, based on a set of correlation function values comprising at least some of the plurality of correlation function value points, a spatial

translation position representing the displacement of the second image relative to the first image;

wherein estimating the spatial translation position does not depend on characterizing the correlation function in the vicinity of the correlation function extremum.--

--52.   An information storage medium that stores a program, executable on a processing device, for estimating a displacement of a second image acquired by a sensing device relative to a first image acquired by the sensing device, the program comprising:

instructions for determining a set of correlation function value points indicative of a correlation function extremum, each correlation function value point based at least partially on a pattern of image values included in both the first image and the second image, each correlation function value point further based on a respective known spatial translation of the image values in the second image relative to the image values in the first image; and

instructions for estimating at least one spatial translation position corresponding to at least one symmetry point which is not the correlation function extremum, based on a plurality of correlation function value points bounding the correlation function extremum, the at least one spatial translation position corresponding to the at least one symmetry point indicative of the displacement of the second image relative to the first image.--

--53.   The information storage medium of claim 52, wherein the instructions for estimating comprise instructions for excluding from the plurality of correlation function value points bounding the correlation function extremum at least one correlation function value point which lies at a spatial offset bounded by other members of the plurality of correlation function value points.--

--54.   An information storage medium that stores a program, executable on a processing device, for estimating a displacement of a second image acquired by a sensing device relative to a first image acquired by the sensing device, the program comprising:

instructions for determining a set of correlation function value points indicative of a correlation function extremum, each correlation function value point based at least partially on a pattern of image values included in both the first image and the second image, each correlation function value point further based on a respective known spatial translation of the image values in the second image relative to the image values in the first image; and

instructions for estimating a spatial translation position based on a plurality of correlation function value points bounding the correlation function extremum, the spatial translation position representing the displacement of the second image relative to the first image;

wherein estimating the spatial translation position does not depend on characterizing the correlation function in the vicinity of the correlation function extremum.--

--55.   The information storage medium of claim 54, wherein the instructions for estimating the spatial translation position comprises instructions for estimating the correlation function curve over at least one range comprising spatial translation position values outside the vicinity of the correlation function extremum, and instructions for estimating the spatial translation position based on at least one characteristic of the estimated correlation function curve which is not local to the vicinity of the correlation function extremum.--

--56.   The information storage medium of claim 55, wherein the at least one characteristic of the estimated correlation function curve which is not local to the vicinity of the correlation function extremum comprises the location of a presumed line of symmetry.--